

## 2A, 50V - 1400V Surface Mount Rectifier

### FEATURES

- Glass passivated junction chip
- Ideal for automated placement
- Low forward voltage drop
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

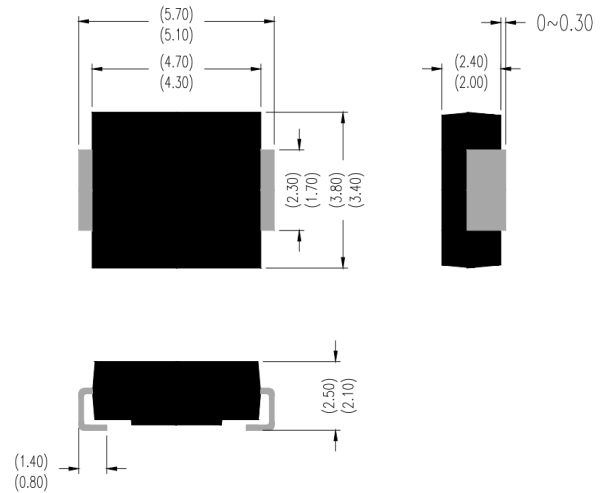
### APPLICATIONS

- Switching mode power supply (SMPS)
- Adapters
- Lighting application
- Converter

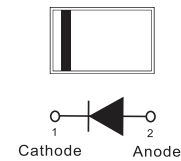
### MECHANICAL DATA

- Case: DO-214AA (SMB)
- Molding compound meets UL 94V-0 flammability rating
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 2 whisker test
- Polarity: As marked
- Weight: 0.09 g (approximately)

DO-214AA (SMB)



Unit : inch(mm)



ABSOLUTE MAXIMUM RATINGS (T <sub>A</sub> = 25°C unless otherwise noted)											
PARAMETER	SYMBOL	GS2A	GS2B	GS2D	GS2G	GS2J	GS2K	GS2M	GS2Q	GS2V	UNIT
Repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	1200	1400	V
Reverse voltage, total rms value	V <sub>R(RMS)</sub>	30	70	140	280	420	560	700	840	980	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	1200	1400	V
Forward current	I <sub>F(AV)</sub>	2									A
Surge peak forward current, 8.3 ms single half sine-wave superimposed on rated load per diode	I <sub>FSM</sub>	50									A
Junction temperature	T <sub>J</sub>	- 55 to +150									°C
Storage temperature	T <sub>STG</sub>	- 55 to +150									°C

<b>THERMAL PERFORMANCE</b>			
<b>PARAMETER</b>	<b>SYMBOL</b>	<b>TYP.</b>	<b>UNIT</b>
Junction to Lead Thermal Resistance	$R_{\theta JL}$	16	$^{\circ}C/W$
Junction to Ambient Thermal Resistance	$R_{\theta JA}$	53	$^{\circ}C/W$

<b>ELECTRICAL SPECIFICATIONS</b> ( $T_A = 25^{\circ}C$ unless otherwise noted)					
<b>PARAMETER</b>	<b>CONDITIONS</b>	<b>SYMBOL</b>	<b>TYP.</b>	<b>MAX.</b>	<b>UNIT</b>
Forward voltage per diode <sup>(1)</sup>	$I_F = 2A, T_J = 25^{\circ}C$	$V_F$	-	1.15	V
Reverse current @ rated $V_R$ per diode <sup>(2)</sup>	$T_J = 25^{\circ}C$	$I_R$	-	1	$\mu A$
	$T_J = 125^{\circ}C$		-	125	$\mu A$
Junction capacitance	1 MHz, $V_R = 4.0V$	$C_J$	30	-	pF
Reverse recovery time	$I_F = 0.5A, I_R = 1.0A$ $I_{RR} = 0.25A$	$t_{rr}$	1.5	-	$\mu s$

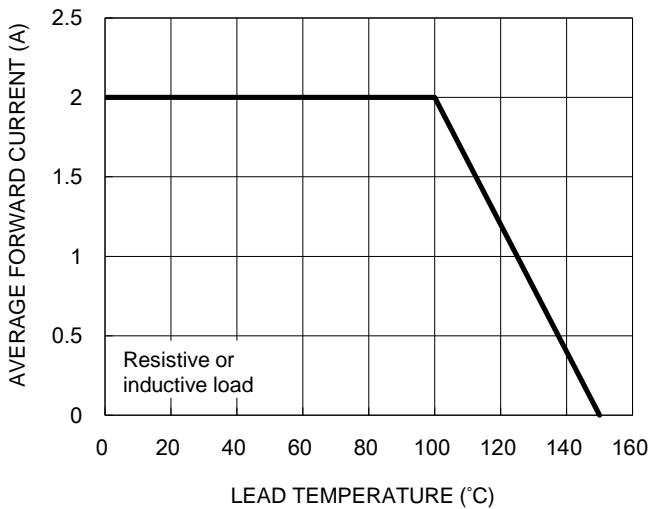
**Notes:**

1. Pulse test with PW=0.3 ms
2. Pulse test with PW=30 ms

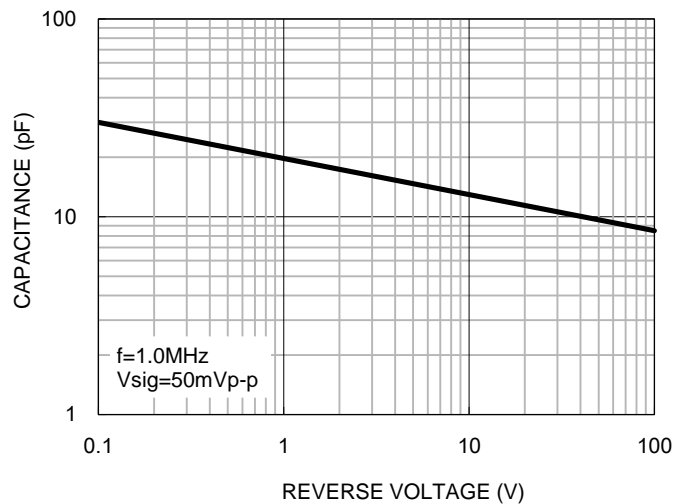
**CHARACTERISTICS CURVES**

( $T_A = 25^{\circ}C$  unless otherwise noted)

**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



## CHARACTERISTICS CURVES

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Fig.3 Typical Reverse Characteristics

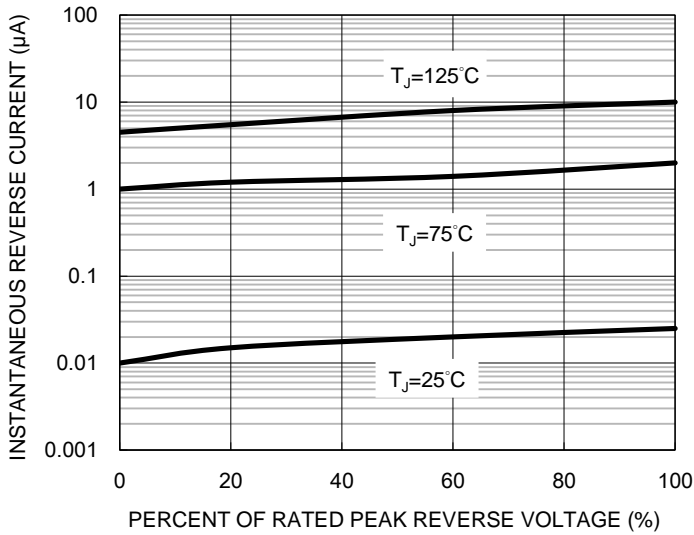


Fig.4 Typical Forward Characteristics

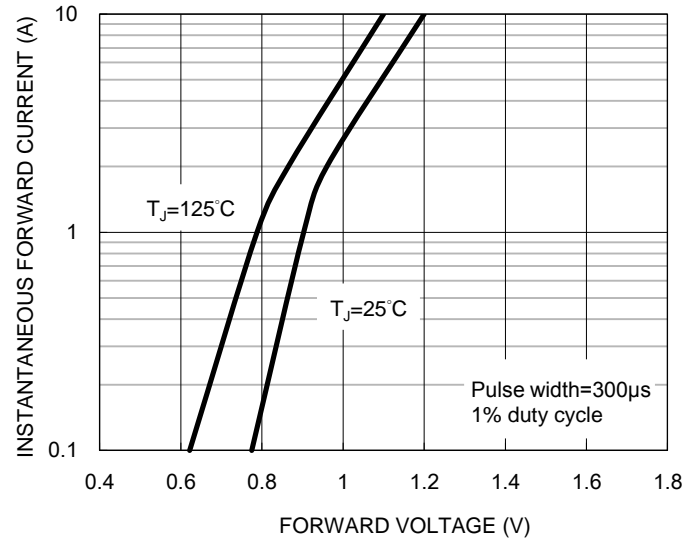


Fig.5 Maximum Non-repetitive Forward Surge Current

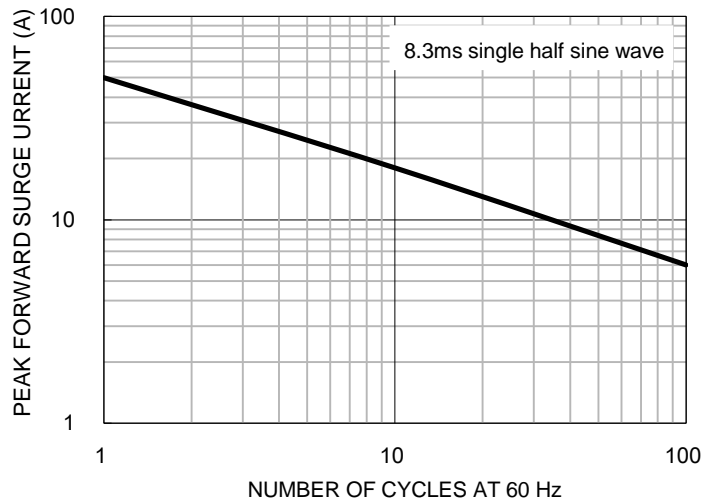


Fig.6 Reverse Recovery Time Characteristic And Test Circuit Diagram

